Promoting Convergence of eBusiness Standards Initiatives and a Cohesive U.S. Strategy

Mark Palmer

National Institute of Standards and Technology

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Meeting Objectives

- **Obtain assessments and recommendations for the eBusiness standards landscape**

- **Document challenges and solutions for a cohesive U.S. strategy for eBusiness standards**

- **Develop the plan for a federated repository on eBusiness standards and initiatives**

- **Define improvements to eBSC model-matrix for use by national and international constituencies**

- **Plan pilot project and identify participants**

Outline

- **Overlapping eBusiness standards initiatives**

- **eBSC Forum**

- **eBusiness Capabilities Matrix**

- **Partnering with ANSI and others**

- **Coordinated U.S. strategy**

Background

- Many, overlapping eBusiness standards initiatives

- Too many standards; lack of commonality in use

- Industry expending critical resources to monitor and influence multiple efforts

- Industry initiatives came to NIST and asked for assistance

  – "It is getting worse, and we recognize that we are adding to the problem!"

- Started voluntary effort on improvements

Forum

- **eBusiness Standards Convergence Forum**
- **Purpose:** encourage convergence
- Provide a neutral forum for industry organizations and standards development organizations to assess the current state of delivery and use of eBusiness standards and define specific actions to improve this situation
  - Define priorities for encouraging convergence or achieving interoperability of eBusiness standards.
  - Define and complete tasks to improve the development, synchronization and deployment.
- Provide results to and work with organizations developing or using eBusiness standards, e.g., ISO/IEC/ITU UN/ECE MoUMG, ASC X12, OASIS, OAGi, RosettaNet, CEN-ISSS, and others

eBSC Forum Participants

- Industry Initiatives
  - AIA (aerospace), AIAG (automotive), ASHRAE (HVAC/building), CIDX (chemical), EIDX (electronics), FEA/GSA (government), FIATECH (building), NSRP (shipbuilding), RAPID (agri-chemical), RosettaNet (electrical and IT), STAR (automotive)

- SDOs and Initiatives
  - ANC X12, OAGi, OASIS, UBL, UN/CEFACT

- Progress depends upon voluntary efforts
  - No formal commitments
  - Success requires industry support

Current Scope of eBSC

- All eBusiness-related standards
  - current participants have interests in the complete business processes for the specification, purchase, manufacture, delivery and use of products, facilities and services.

- No direct participation by initiatives in finance, health and legal. Input solicited.

- Develop insights and recommendations of utility for all business processes.

- Started with a broad work plan
  - then focused on key topics and tasks of impact

Recent eBSC Activities

- Workshops
  - April 2004: Service Oriented Architectures
  - October 2004: Alternate Methods for Developing Message Building Blocks and Management of Complexity
- Task Teams
  - Recommendations on paradigm shift to cross-industry standards convergence
  - Common conceptual model for eBusiness capabilities stack => Capabilities Matrix
  - Common representation of coded lists
    - FIATECH, OAGi, RosettaNet => UBL / OASIS

Observations and Challenges

- **Camps of Interest / No Shared Roadmap**
  - SDOs with overlapping, parallel projects
  - Often addressing similar requirements and challenges
- **Need for a common, conceptual framework**
  - Provide a model for viewing the eBusiness space
  - Understand requirements and available capabilities
  - Identify overlaps, gaps, and linkage
  - Plan and coordinate projects and convergence
  - Basis for a registry of standards and SD projects.
    - Who, how, status, access,…
    - Federated resource for education & communication

Observations and Challenges (cont.)

- **Barriers to progress**
  - Lack of oversight and coordination among SDOs
  - Ineffective or non-existent harmonization / convergence processes by SDOs
  - SDOs management commitment and leadership often missing (no push from the "top")
  - Competition (real & perceived) between SDOs
  - Perception that convergence erodes prominence
  - Cost & time to modify / converge published specs
  - Corporate IT decision makers apprehensive of further investments in "infrastructure" standards
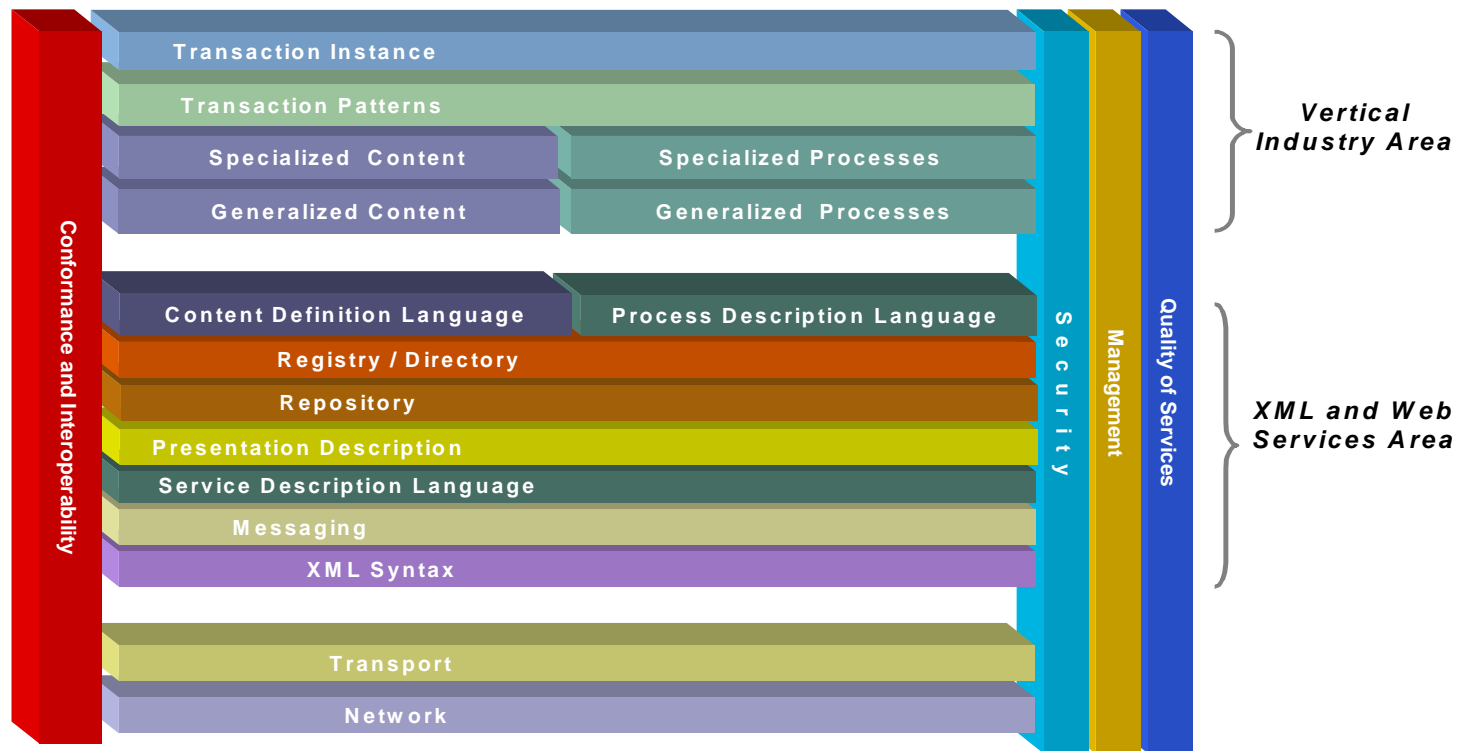   - minimal direct pressure on SDOs to converge

eBusiness Standards Matrix

- **Need for common, conceptual framework**
  - Understand requirements and available capabilities.
  - Identify overlaps, gaps and linkage
  - plan convergence
- **Started with common concepts for first matrix:**
  (from multiple sources, AIAG, BIC, OAGi, OASIS,…)
  - Business Operational View
  - Functional Service View
  - Application Transport and Network
  - Testing/Interoperability

Interest in Common Framework

- **Industry Questionnaire - Q11.** Is this model of eBusiness capabilities "stack" useful and sufficient for providing a generic framework for describing what is needed?

Conceptual Model For B2B

| Transaction Instance |
| Transaction Patterns |
| Specialized Content | Specialized Processes |
| Generalized Content | Generalized Processes |

Vertical Industry Area

| Content Definition Language | Process Description Language |
| Registry / Directory |
| Repository |
| Presentation Description |
| Service Description Language |
| Messaging |
| XML Syntax |

XML and Web Services Area

| Transport |
| Network |

Conformance and Interoperability

Security

Management

Quality of Services

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- **Summary of Responses:** There is general support for the generic model; many organizations have ideas on modifications/additions.

Discussions at recent meetings of ISO IEC ITU UNECE MoUMG

- What have been the results from MoUMG reviews of early submissions for a conceptual framework?
  - Some discussion; Next step: align "business view" and "technical view"
- Is there agreement on eBusiness standards "meta-data" which should be available?
  - No. Next step: Collect completed work on standards "meta-data" and identify recommended "starter set".
- Could any of the existing SDOs' databases/directories of standards and projects be used as a foundation? Will they accept the addition of "consortia standards efforts"?
  - Not w/n MoUMG members. Next step: Given the boundaries, foci and constraints of existing ISO and IEC standards projects databases, MoUMG agreed that another mechanism should be investigated.
- What other resources are available to build a federated example? Who will help?
  - Next step: eBSC discuss with OASIS proof of concept for federated repository of information on eBusiness standards and initiatives.
  - MP to follow-up with NIST and ANSI – National Standards Strategy

Capabilities Framework: Purpose

- **Framework for standards developers**

  - communicate eBus. standards-related concepts among one another to promote more effective standards development, cross-industry standards collaboration and convergence, and standards adoption and deployment.

- **Framework for users**

  - understand the available standards and relevant initiatives and **to develop industry Roadmaps for the adoption and deployment** of eBusiness standards.

- **Basis for federated repository**

  - on eBusiness standards initiatives **with which standards implementers can approach planning**,evaluation, selection, implementation and deployment.

Capabilities Framework: Primary Topics

- Methodologies

- Business Operational View

- Business Content for Business Messages
  - Content, assembly and identification

- Agreements
  - Business and technical contracts

- Functional Service View
  - Service description

- Application Transport and Network
  - Transport, messaging, quality of service

- Conformance and Interoperability
  - Test specifications, test suites, certification & accreditation processes

Capabilities Framework: Audience

- eBusiness standards organizations and contributors

- Industry eBusiness standards initiatives and contributors

- eBusiness standards implementers

- Users of eBusiness standards

Capabilities Framework: Example

- Each topic area template includes:
  - Functional category, definition, examples and placeholder for organizations and applicable specification

Standards Area	Definition	Examples	Org Comte/ Working Groups
Security	This protective layer spans a wide range of abstractions from basic encryption, authentication and authorization on the core XML layer to non-repudiation and security policies in the business process layer.	SAML, WS-Security	OASIS, IETF

Progress and Next Steps

- Matrix distributed to SDOs and initiatives to populate
  - results illustrated many interpretations of intent/purpose
  - identified some overlaps and need for coordination
- Updated the matrix and definitions; added examples
- Distributed for review and comments, Feb.- April 2005
- Time to move from "tables" to on-line, federated resource
- Establish partnerships for pilot project and refinement
  - ANSI: *NSSN – National Resource for Global Standards*
  - Team to agree on meta-data, design and resolving comments
- Broaden participation: national and global resource
  - promote effective standards development; reduce redundancy
  - enable cross-industry standards collaboration and convergence

Tool for Developing Coordinated U.S. Strategy for eBusiness Standards

- eBSC matrix is a tool for:
  - structuring / illuminating eBusiness standards space
  - convergence in delivering needed standards
  - developing a coordinated U.S. strategy
- Could be a catalyst and resource for SDOs strategic planning and industry roadmapping
- Success will require support and partnership

For questions and information
  - Mark Palmer, NIST, mark.palmer@nist.gov
  - Jim Wilson, CIDX/RAPID, jim.wilson@kcx.com
  - Monica J. Martin, Sun Microsystems, monica.martin@sun.com

eBSC

Initiating Pilot Project

- Which organizations will participate?

- Who should/will participate on planning and design team?

- What should be the next steps in improving the matrix and achieving general agreement?

- What should be the scope of the pilot project?

- Sequence for roll-out to engage national and international participation

- Resources and schedule